High Allotment - # 00827
Voight Allotment - #00894
Rangeland Health Standards Assessment

Allotment Overviews

The High and Voight grazing allotments are located on the lower north slopes of Stukel Mountain, approximately eight miles east of Klamath Falls (see attached map). These allotments will be assessed together in this document as they are similar in topography, vegetation communities, and livestock use. Prior to 1989, the two allotments were managed as a single allotment that was leased to Taylor High. In 1989, High sold a portion of his base property to Gary Voight and the present Voight allotment was created as a separate allotment. Then in 1994, High transferred his preference for the High allotment to Voight. Thus, Gary Voight is the current lessee for both allotments.

The High allotment is approximately 237 acres of BLM-administered public lands. There are 17 AUMs of authorized livestock use by cattle with a season-of-use from May 1 to June 15.

The Voight allotment is approximately 112 acres of BLM-administered public lands. There are 9 AUMs of authorized livestock use by cattle with a season-of-use from May 1 to June 15.

Both allotments lie between 4200 and just over 4700 feet in elevation. The Voight allotment is mainly a north aspect slope and the High allotment has north and east aspect slopes. The major vegetation community on both allotments is a mix of big sagebrush (mainly Mountain big sage), perennial grasses including (in order of dominance) Sandbergs bluegrass, Thurbers needlegrass, Idaho fescue, and bluebunch wheatgrass, and various forb species. Both green and rubber rabbitbrush are found in varying densities. Low sagebrush is found on shallower soil sites and mountain mahogany, Antelope bitterbrush, currants, and other shrub species are scattered in areas of rock outcrops. There are also varying levels of juniper trees throughout both allotments. Invasive alien grasses including medusahead, cheatgrass, and annual brome species are found in both allotments. There is also a scattered population of Mediterranean sage, a noxious weed, in both allotments. In the southeast portion of the High allotment there is a small stand of Ponderosa pines that was not visited for this assessment.

High Allotment looking southeast

Both of the allotments are considered "C" category or low priority allotments for monitoring purposes. There have been no formal monitoring studies completed on either allotment. On June 12, 2002 a Rangeland Health Evaluation Worksheet was completed by a team of resource specialists at a representative site on the Voight allotment. The data from the worksheet along with notes taken during a tour of the allotment on the same day and information found in the allotment files will be used to help assess the condition of the allotment.

A review of the allotment files shows that from 1974 through 1989 the combined allotments were authorized for 6 cattle from May 1 to August 31 which is 25 AUMs. After the allotments were officially split in late 1989, the High allotment was authorized for 6 cattle from May 1 to July 25 which is 17 AUMs and the new Voight allotment was authorized for 6 cattle from May 1 to June 14 which is 9 AUMs. Beginning in 1995, both allotments were leased to Voight and the seasons-of-use were changed to May 1 to June 15 with 11 cattle on the High allotment and 6 cattle on the Voight allotment.

Very little information concerning vegetation conditions or management of the allotment was found in the allotment files. This is typical for most of the smaller allotments in the Resource Area. There are some notes from an 8/15/72 allotment visit that give some idea of the conditions at that time. The lower elevation range was considered to be in poor to fair condition and the higher elevation range was in fair condition. Mediterranean sage and medusahead were both noted as present. Poor vegetative cover and erosion pavement and rapid runoff were noted for the lower elevations. The conditions of several small reservoirs on the BLM and adjacent private were noted. It was also noted that Mr. High had been locking the gates on the access roads due to hunters and recreationists leaving them open and problems with littering.

During the development of the Resource Management Plan (RMP) for the resource area, the High allotment had the following Resource Conflicts/Concerns and corresponding Management Objectives identified.

Resource Conflicts/Concerns	**Management Objectives**
Under current management the range condition, level or pattern of utilization, and/or season-of-use may be unacceptable; or carrying capacity may be exceeded.	Maintain or improve rangeland condition and productivity through a change in grazing management practices, timing and/or level of active use.
Big game limited by unsatisfactory habitat condition.	Maintain or improve big game habitat in satisfactory condition.
Critical deer winter range occurs in allotment.	Management systems should reflect the importance of deer winter range.
Active erosion occurs in the allotment.	Maintain and improve erosion condition in moderate or better erosion condition.

These will be addressed individually in the Management Recommendations section of this

document.

For the Voight allotment there were no Resource Conflict/Concerns identified in the RMP.

Rangeland Health Evaluation Summary

To gather resource information for this assessment a Rangeland Health Evaluation Worksheet was completed on June 12, 2002. A team of resource specialists walked around both allotments observing the current conditions and then completed the worksheet at a representative location in the western end of the Voight allotment.

A group of 17 indicator ratings were assessed and a summary rating for the attributes of Soil/Site Stability, Hydrologic Function, and Biotic Integrity were determined. This summary rating indicates the level of departure from the Ecological Site Description/Ecological Reference Area of the site being assessed. For this site the Ecological Site Description that most closely matches would be the Shallow Loam 14-18" For this evaluation, all three of these attributes were given a moderate rating of departure. The details of the individual indicator ratings will be discussed below under the applicable Rangeland Health Standard.

The resource specialists walked extensively over both allotments to observe the current conditions. The conditions found in the Voight allotment are well reflected in the worksheet. The conditions in the High allotment were a little better overall. There was a better distribution and a higher level of production of the native perennial grass species. The Voight allotment has Sandberg's bluegrass as the dominant grass while the High allotment has a good amount of Idaho fescue and Thurber's needlegrass throughout the allotment along with scattered areas of Bluebunch wheatgrass. There were also fewer bare soil areas in the High allotment and a better distribution of litter. Exotic grass species including cheatgrass and Medusahead were also found in the High allotment along with several scattered patches of Mediterranean sage. These plants appeared to increase in frequency and amount near the private land on the south end of the allotment. Both allotments also have a component of invading junipers that appear to be affecting the production of the native species in some areas. On the private land to the south there was an active juniper reduction operation observed. The junipers were being uprooted with a small bulldozer. Along the south border of both allotments there is no fencing to separate the BLM from the private. There is a relatively new fence that runs north to south along the border between the allotments. The north side of the Voight allotment is not fenced separate from the private.

Standard 1 - Watershed Function-Uplands

This standard focuses on the basic physical functions of upland soils that support plant growth, the maintenance or development of plant populations and communities, and promote dependable flows of quality water from the watershed. Some of the indicators to be used in determining attainment of this standard include:

- amount and distribution of plant cover;
- amount and distribution of plant litter;
- accumulation/incorporation of organic matter;
- amount and distribution of bare ground, gravel, stone, and rock;
- plant composition and community structure;
- presence and integrity of biological crusts;
- absence of accelerated erosion and overland flow.

The determination for this standard will primarily be based upon the Rangeland Health Evaluation Worksheet (Worksheet) and the accompanying notes from the June 12, 2002 visit to the allotments.

In the Voight allotment where the Worksheet was completed, there was a higher level of bare ground than would be expected for this site. The total plant cover was correspondingly lower along with the litter cover. The perennial grass species were dominated by Sandbergs bluegrass with bottlebrush squirreltail also common. The site appears to have deeper soils as evidenced by the big sagebrush component. These types of sites would normally support more perennial grasses including Idaho fescue, Bluebunch wheatgrass, and needlegrass species. There was a moderate amount of western juniper trees invading the allotment which could be partially causing this decreased level of grasses in the understory. There was also a higher than expected level of rabbitbrush, both rubber and green, on the allotment. These shrubs typically increase in areas that have been disturbed by heavy livestock grazing or other factors. Some of the shallow soil areas on the allotment supported a low sagebrush component with Sandbergs bluegrass. As mentioned earlier, several other species of exotic and/or invasive plants were encountered on the allotment including Mediterranean sage, medusahead, cheatgrass, bromegrasses, and tumble mustard.

The High allotment was in better condition vegetatively with a good mix of perennial grasses including Idaho fescue, bluebunch wheatgrass, Sandbergs bluegrass, and Thurbers needlegrass. Bare ground areas were fewer and smaller and there was a better litter cover. This allotment also supports both big and low sagebrush. The above mentioned exotic and invasive plant species were also encountered with heavier concentrations of the Mediterranean sage in the central portion of section 30.

Both of these allotments were grazed from May through the end of August up until1989. The use period on the High allotment was then reduced to May through July 25 and the Voight allotment was May through mid June. Both allotments were changed to the existing season of use of May 1 through June 15 in 1995. With the earlier end date, there should be a better opportunity for improvements in the conditions of the vegetation. The lack of adequate fencing between the BLM allotments and the private lands may be resulting in continued use after the authorized season of use. Many of the smaller allotments like these with limited ‘high value’

resources are not high priorities for use supervision by BLM employees during the grazing season. These two allotments must also be accessed through private land with permission from the lessee normally requested. These factors tend to limit the level of active management and resource improvement that can be pursued. The Management Recommendations section at the end of this assessment further addresses this.

This Standard is currently being met on the High allotment.

This Standard is currently not being met on the Voight allotment but significant progress is being made. The recent changes in the season of use should allow for a better vegetative condition. Additional use supervision should be done if possible to insure compliance with the current season of use. An Ecological Site Inventory is planned for this allotment during 2006. This inventory will give a better idea of what the potential vegetation communities on the allotment should be as well as providing some baseline data to better determine the trend of the vegetation conditions.

Standard 2 - Watershed Function-Riparian/Wetland Areas

This Standard focuses on the properly functioning condition of riparian/wetland areas as appropriate to soil, climate, and landform.

On the Voight allotment, riparian/wetland areas are limited to ephemeral drainages that transport water during spring snowmelt and larger rainfall events. Due to the short term nature of the water in these drainages, there are virtually no riparian plant species present. The channels are well armored by rocks, gravels, and upland vegetation and are in stable condition.

In the High allotment, there are also ephemeral drainages that are in similar condition to those in the Voight allotment. A small waterhole was constructed on the larger of the drainages (see map) and it captures some runoff in the spring with the overflow going back into the drainage. There is a developed spring, Keck spring, in the southeast corner of the allotment. The spring site has been fenced and the water is piped to a trough outside of the fence. A flow of 1.2 gal/min was recorded at this spring in 1997. As long as the fence is periodically maintained, this spring and the riparian vegetation should remain in good condition.

This Standard is currently being met on both the Voight and High allotments.

Standard 3 - Ecological Processes

This Standard addresses the ecological processes of energy flow and nutrient cycling as influenced by existing and desired plant and animal communities. Potential indicators that can be used to determine if this Standard is being met include:

- Photosynthesis is effectively occurring throughout the potential growing season, consistent with the potential/capability of the site, as evidenced by plant composition and community structure.

- Nutrient cycling is occurring effectively, consistent with the potential/capability of the site, as evidenced by:

    - plant composition and community structure;
    - accumulation, distribution, incorporation of plant litter and organic matter into the soil;
    - animal community structure and composition;
    - root occupancy in the soil profile; and
    - biological activity including plant growth, herbivory, and rodent, insect, and microbial activity.

As noted under Standard 1 above, the vegetative conditions of the two allotments are a little different. The High allotment has a good plant composition and community structure with adequate levels of litter to provide for nutrient cycling. There are some areas that have invasive and/or exotic plant species as mentioned above. These are currently having a minor impact on the overall health and productivity of the vegetation community. It appears that the density of juniper trees will continue to increase on the allotment. Active treatments to reduce the number of these trees may need to be pursued in the future, especially in the areas where they are starting to displace the important wildlife shrub species. With the recent shortening of the grazing season, there should be an upward trend in the condition of the perennial grasses and forbs.

The current vegetation conditions on the Voight allotment would be considered mid seral. The perennial grass component is dominated by Sandbergs bluegrass and bottlebrush squirreltail with scattered areas of Idaho fescue and bluebunch wheatgrass. The total production of the grass component has been lowered on the allotment and the shrub component has been increased. There has also been an increase in rabbitbrush which is considered to be an indicator of past disturbance. This shift in the structure of the vegetation community has resulted in more areas of bare ground and an overall decrease in plant litter.

This Standard is currently being met on the High allotment.
This Standard is currently not being met on the Voight allotment but significant progress is being made. The current grazing season should allow the perennial grasses to increase over time with a resulting increase in production and plant litter and a decrease in bare ground areas. As mentioned under Standard 1, an Ecological Site Inventory is planned for this allotment during 2006. This inventory will give a better idea of what the potential vegetation communities on the allotment should be as well as providing some baseline data to better determine the trend of the vegetation conditions and the associated ecological processes.

Standard 4 - Water Quality

This Standard addresses surface and groundwater quality as influenced by agency actions and whether it complies with State water quality standards.

As discussed under Standard 2 above, riparian/wetland areas in these two allotments are limited. The ephemeral drainages are well armored by rock, gravel, and upland vegetation. Minimal amounts of sediment are likely being delivered downstream by these drainages. The developed spring in the High allotment is fenced to exclude livestock and should remain in good condition if the fence is periodically maintained.

This Standard is currently being met on the High and Voight allotments.

Standard 5 - Native, T&E, and Locally Important Species

This Standard focuses on retaining and restoring native plant and animal (including fish) species, populations and communities (including threatened, endangered, and other special status species and species of local importance).

Potential indicators that can be used to determine if this Standard is being met include;

> Essential habitat elements for species, populations and communities are present and available, consistent with the potential/capability of the landscape, as evidenced by:
>
> - plant community composition, age class distribution, productivity;
> - animal community composition, productivity;
> - habitat elements;
> - spatial distribution of habitat;
> - habitat connectivity; and
> - population stability/resilience.

Both of these allotments are considered deer summer range but with the northerly aspect they would likely not see much use in the winter. There is a decent brush component in both allotments to provide browse for the deer as well as a good grass component. The developed spring in the High allotment provides a good source of water for the deer and other wildlife. The allotment also has good habitat elements to support rabbits, mice, woodrats and other small mammals as well as bird species. No Special Status animals are known to use these allotments.

Portions of the High allotment were surveyed for special status vascular plants and noxious weeds in 1980 and 1995. As a result of these combined surveys, one site of the Klamath County noxious weed Mediterranean sage (*Salvia aethiopis*) was discovered in 1995 in the western part of the allotment on BLM administered land. This site consists of approximately 40 plants. This site has been chemically treated on an annual basis since it's discovery, but still persists. Portions of the Voight allotment were surveyed for special status vascular plants and noxious weeds in 1995. As a result of these surveys, two sites of the Klamath County noxious weed

Mediterranean sage (*Salvia aethiopis*) were discovered in 1995 on BLM administered land. One site located in the western part of the allotment, and one site in the eastern part of the allotment. Both sites consist of approximately 40 plants, which have been chemically treated on an annual basis since discovery. Both sites still persist. Through the use of a botany contract, both allotments are currently being surveyed for special status vascular plants and noxious weeds. If any new sites of either noxious weeds or special status vascular plants are discovered, they will be managed as per resource area guidelines.

This Standard is currently being met on the High and Voight allotments. The existing noxious weed sites are being actively managed.

Management Recommendations

The Voight and High allotments are both relatively small pieces of land (349 acres combined) that are disconnected from the larger tracts of BLM-administered land on Stukel Mountain. There is no public access to these allotments which requires BLM employees to seek permission to go across private land for administrative purposes. The current combined authorized grazing use for the two allotments is 26 AUMs. As with most of these small disconnected allotments in the resource area, private grazing lands surround the BLM lands and boundary fences are not complete.

Both of these allotments are considered "C" category allotments for management. This category of allotments is the lowest priority for management and/or monitoring activities based upon several rating criteria. These criteria points for C allotments include:

- Present range condition is not a factor.
- Allotments have low resource production potential and are producing near their potential (trend is typically static).
- Limited resource use conflicts/controversy may exist.
- Opportunities for positive economic return on public investment do not exist or are constrained by technological or economic factors.
- Present management appears satisfactory or is the only logical practice under existing resource conditions.

For the Voight and High allotments, the last two criteria need to be considered when proposing any management changes involving structural range improvements such as fencing or waterhole development. The same would apply to increased use supervision of these allotments when compared to other allotments where higher resource values are involved.

The first recommendation that should be considered is the selling or trading of these disconnected tracts. The Voight allotment is considered Land Tenure Zone 3 land in the RMP. This designates it as being suitable for disposal through sale. The High allotment is considered Zone 2 land which designates it as being eligible for disposal through trade. This allotment does have a developed spring and a small stand of timber which makes it more valuable from a resource standpoint. These sites are both located within the 40 acres in the SE¼ SE¼ of Section

31. The remainder of this allotment is mainly moderate production rangeland. The small amount of AUMs that are authorized for these two allotments and their location make active management by BLM a low priority. Disposal of these tracts would allow for increased management attention on other areas with higher potential for resource improvements.

If these allotments are retained in BLM administration and their resources are considered a high enough priority for active management, then there are some things that could be considered to allow for resource improvement or maintenance. The current season of use has an end date of June 15. In order for this to be effectively implemented, fencing of the allotment boundaries needs to be done to exclude livestock drift from the adjacent private lands. As an alternative, an Exchange of Use agreement with the lessee should be developed that allows for use of the BLM lands in conjunction with use on the private lands. With the limited amount of water on the allotments, this would be a benefit as there appears to be some functioning waterholes on the adjacent private lands. This agreement would require the lessee to remove his livestock from the BLM and his private lands as scheduled on the allotment lease. Periodic use supervision by BLM employees would also need to be scheduled to insure compliance.

Since both of these allotments are now leased to the same person, it would make administration of the allotments more efficient if they were recombined into one allotment. This could be done through an agreement or decision followed by a plan amendment.

The density of juniper trees appears to be on the increase in both allotments as evidenced by a moderate population of smaller trees. The north facing slopes on these allotments do have a good shrub component that provides habitat for wildlife. Both allotments should be surveyed to determine the potential benefits of juniper reduction projects.

As mentioned earlier, during the development of the Resource Management Plan (RMP) for the resource area, the High allotment had the following Resource Conflicts/Concerns and corresponding Management Objectives identified.

Resource Conflicts/Concerns	**Management Objectives**
Under current management the range condition, level or pattern of utilization, and/or season-of-use may be unacceptable; or carrying capacity may be exceeded.	Maintain or improve rangeland condition and productivity through a change in grazing management practices, timing and/or level of active use.
Big game limited by unsatisfactory habitat condition.	Maintain or improve big game habitat in satisfactory condition.
Critical deer winter range occurs in allotment.	Management systems should reflect the importance of deer winter range.
Active erosion occurs in the allotment.	Maintain and improve erosion condition in moderate or better erosion condition.

The recent change in the season of use for both allotments should help improve the range conditions by allowing the perennial grasses to produce seed after the livestock are removed in

mid June. Over time, there should be an increase in the density and vigor of these grasses. This increased vegetative cover along with a resultant increase in litter cover should also provide for increased protection from erosion. Improvements in vegetation conditions for big game including deer should also be realized by the earlier removal date. If juniper reduction projects are implemented on the allotment, shrub species as well as the grasses and forbs should increase due to decreased competition for moisture and nutrients.

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Determination

(X) Existing grazing management practices and/or levels of grazing use on the Voight and High grazing allotments promotes achievement or significant progress toward the Oregon Standards for Rangeland Health and conforms with the Guidelines for Livestock Grazing Management.

( ) Existing grazing management practices and/or levels of grazing use on the Voight and High grazing allotments will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

/s/ *Teresa A.Raml* 1/30/03

Manager, Klamath Falls Resource Area Date